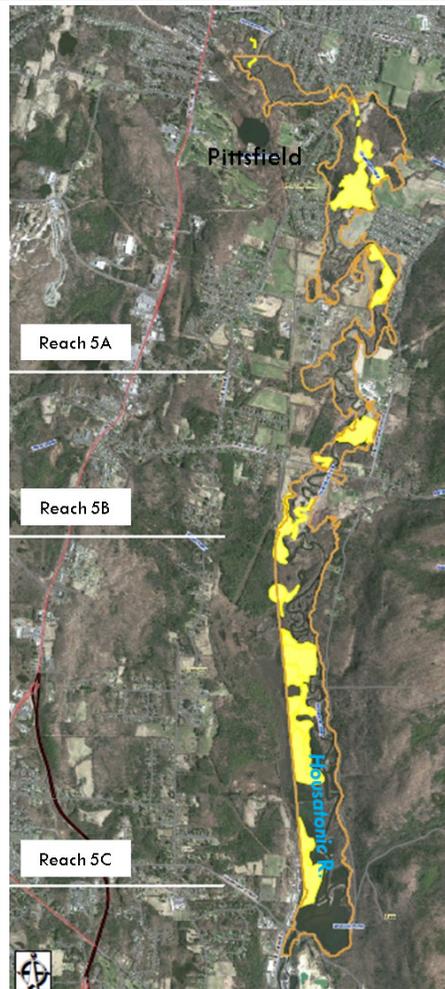


Housatonic Rest-of-River Site



Environmental
Stewardship Concepts, LLC

Site Map



Legend

- Primary Study Area (PSA)
- Core Area 1-

These areas show the most important, disturbance-sensitive habitat areas for state-listed species.

Source: General Electric Co, Intended Final Decision on the Modification to the Reissued RCRA Permit and Selection of CERCLA Response Action, Sept. 2015

Species of Concern to Massachusetts

The intended remedy will leave in place substantial amounts of PCBs, with significant uncertainty about the amount and concentration because so much of the contamination is at depth in riverbanks, flood plains, and at the bottom of the Housatonic River. Not until the removal begins will anyone have a clear scope of the extent of contamination.

So much of the contamination is left in place because the EPA was convinced by the state of Massachusetts that the habitats in the floodplain could not be lost, that species of concern were too significant and not replaceable, and that the process of removing the contamination could not possibly provide sufficient restoration. The plant species listed in the intended permit are shown on this sheet and all but one can be cultured and replanted after remediation in a restoration effort. Note that the vernal pools in the first 2 miles of the river remediation were successfully restored.



Bristly Buttercup, *Ranunculus pensylvanicus*
Source: MinnesotaWildflowers.Info

Species Included in Core Area 1 Delineation

| Common Name | Scientific Name | Cultivator(s) |
|-----------------------------|-------------------------------------|--|
| Bristly Buttercup | <i>Ranunculus pensylvanicus</i> | Prairie Moon Nursery |
| Bur Oak | <i>Quercus macrocarpa</i> | Weston Nurseries; Bigelow Nurseries, Inc; Sylvan Nursery, Inc; Champlain Valley Native Plant Restoration Nursery |
| Crooked-stem Aster | <i>Symphyotrichum prenanthoides</i> | Prairie Nursery |
| Gray's Sedge | <i>Carex grayi</i> | Tripple Brook Farms; Project Native; New Moon Nursery; Prairie Nursery |
| Hairy Wild Rye | <i>Elymus villosus</i> | Project Native; Prairie Moon Nursery |
| Intermediate Spike Sedge | <i>Eleocharis intermedia</i> | St. Williams Nursery & Ecology Centre, Florida Hill Nursery |
| Narrow Leaved Spring Beauty | <i>Claytonia virginica</i> | Garden in the Woods; Nasami Farms |
| Tuckerman's Sedge | <i>Carex tuckermanii</i> | TBA |
| Wapato | <i>Sagittaria cuneata</i> | Fern Hill Nursery and Botanical Sanctuary; Prairie Moon Nursery |

* High-terrace floodplain forest and Red Maple-Black Ash-Hemlock-Bur Oak swamp natural communities are also included in Core Area 1.

Fish Tissue Contamination

Fish in the Housatonic River in Massachusetts and Connecticut are not safe to eat for much of the length of the river. The intended remedy will not reduce the PCB levels in fish for many years, and even then, fish in Massachusetts will remain unsafe/unhealthy to eat for many decades at even the lowest fish consumption rates.

The disappointment in the EPA's decision is in using a target fish tissue PCB concentration of 1.5 ppm (parts per million) as a basis for allowing fish consumption. EPA's own guidance on permissible PCB levels in fish tissue is 0.05 ppm, 30 times lower. Connecticut uses a concentration that is lower still, 0.00018 ppm for the Housatonic R., because the state of Connecticut assumes higher fish consumption and protects against cancer for 1 in a million new cases.



Source: Peter deFur

Major Sites with PCB Contamination

There are numerous examples of sites that have successfully dealt with PCB remediation in a more responsible manner than the plan proposed for the Housatonic River. The sites and their remedial actions are listed below.

Lower Duwamish R., WA: Dredging, capping, enhanced natural recovery, and monitored natural recovery

Commencement Bay, WA: Excavating source area soils and slag, disposal of source area soils and debris, capping of the entire site, demolishing remaining structures, replacing the entire surface water drainage system, continued monitoring, and the implementation of restrictions and guidelines to ensure that development activities do not impact the long-term effectiveness of cleanup

Fox R., WI: Dredging, capping, and sand covers to reduce the transport of PCBs from the river into Green Bay and Lake Michigan as quickly as possible, and long-term monitoring and natural recovery after remediation

Fields Brook Wetlands, OH: Excavating with backfilling and landfilling, or covering the contaminated soils, institutional controls, access restrictions, and monitoring

Hudson R., NY: Dredging, planting of submerged aquatic vegetation and riverine fringing wetland vegetation, and long-term monitoring

Charles R., MA: Excavation and off-site soil disposal, construction of a terrace wetland and breakwater structure, mulching, seeding, and fertilizing along the river, and monitoring

New Bedford, MA: Removal of PCB-contaminated sediment into confined disposal facilities (CDFs), monitoring, and institutional controls, such as seafood advisories and educational campaigns

New London Submarine Base, CT: Excavation of contaminated sediment, restoration of excavated areas to pre-existing elevations, seeding the restored area to establish native wetland vegetation, monitoring the area to ensure that the native wetland vegetation has been established, and land use controls

Clinch R./Poplar Creek, TN: Existing institutional controls to control potential sediment-disturbing activities, fish consumption advisories to reduce exposure to contaminants in fish tissue, annual monitoring to detect changes in contaminant levels or mobility, and survey to confirm effectiveness of fish consumption advisories

Sangamo Weston/Twelve Mile Creek/Lake Hartwell, SC: Excavation/dredging of PCB impacted soils and debris, installation of groundwater recovery and treatment systems, fish consumption advisories, implementation of a public program to increase the awareness of the advisory and methods to prepare fish, regular flushing of sediments trapped behind the three impoundments, re-establishment of aquatic habitat and native vegetation, bank stabilization, and annual monitoring